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NRO REVIEW COMPLETED

11 SEP 1963

MEMORANDUM FOR: Director of Central Intelligence

SUBJECT : Satellite Reconnaissance Program

1. This memorandum is for information only.

2. Following is the NRO satellite schedule for the remainder of calendar year 1963, compatible with vehicles, payloads, testing, funds and launch pad availability:

<u>System</u>	<u>Mission</u>	<u>Launch Date</u>
CORONA J	1002	21 September
CORONA J	1003	5 October
CORONA J	1004	20 October
ARGON	9059A	25 October
CORONA J	1005	31 October
LANYARD	8004	1 November
CORONA MURAL	R-7	20 November
CORONA J	1006	25 November
LANYARD	8005	9 December
CORONA MURAL	R-7	25 December
CORONA J	8007	27 December

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3. The proposed schedule for an R-7 capability with MURAL payloads for the rest of the year can only be changed with considerable complication to the problem of pad allocations and payload systems testing. The various payloads are being tested in order, one at a time, due to the limitation imposed by having only one high altitude test chamber. Any change in the proposed schedule would mean that one of the payloads in paragraph 2 would fall out:

- A. First R-7 MURAL - Decision made on 13 November for a 20 November launch. If the LANYARD vehicle for Mission 1004 were used for this MURAL R-7 capability, decision could be made on 18 October for a 27 October launch. This change, however, would make the ARGON mission 9059A

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fall after 5 November due to pad availability. The ARGON cut-off date, as presently approved, is to fly no later than 31 October. In addition, any change in this schedule removes one October CORONA J mission.

- B. Second R-7 MURAL - Decision made on 18 December for a 25 December launch.

4. Considerable analysis has been made by Lockheed, Itek, and technical staffs in the government concerning the first CORONA J mission. The degree of success achieved in the recovery of the first half of the payload (equal in coverage to a basic MURAL) and fixes proposed on the second CORONA J mission give high confidence of total operation of this system in the future. In summary, the following problems occurred and corrective actions have been initiated:

- A. The 400 cycle power failed on the second half of the operation. A refurbished inverter, of an older type, was used on this mission. When this inverter was updated, records did not then indicate its past history of failure, even though it had failed twice in testing. This device, with marginal reliability, was flown. Lockheed has changed their stock cataloguing system so that the history of modified items do not disappear in the failure analysis and quality control program. The new inverter production is now in line with schedules and no more refurbished inverters of the older type will be used. Failure of the 400 cycle power caused the payload to be dormant on the second half of the mission.
- B. The second recovery system battery failed causing power to be inadequate for actuation of the squibs ejecting the parachute and other events in the recovery system. Heating in the second recovery system was slightly high on the battery. A new battery had been planned for the third CORONA J to alleviate a marginal condition. The new, higher rated, battery is now installed on all CORONA J vehicles.
- C. Temperatures were high on the first CORONA J mission. A tape recorder was flown on this mission and temperature data for the full orbit is now available. Skin temperatures were as

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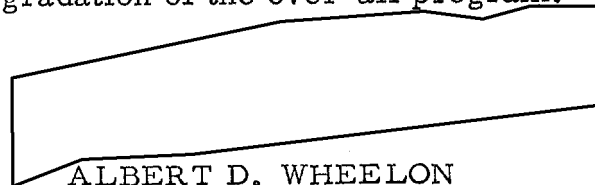
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predicted and Lockheed feels that the internal predicted model of the temperature was in error. The second CORONA J will be biased thermally to a cooler skin temperature to compensate for this anomaly.

5. The big question is - "Does this schedule provide for at least a minimum required level of effort in satellite reconnaissance for the remainder of the year?" The answer can only be a value judgment after considering a great number of factors including targeting requirements, test facilities, launch pads, funding, payloads and vehicle availability and compatibility, resources in facilities and personnel, and a happy balance between development and testing of new systems and proven reliable systems in being. I am satisfied that the NRO has now recognized its fundamental error in attempting to phase out the CORONA series before having acquired proven in being and replacement capabilities. It appears to me that the NRO is now responding much better to the problem and that the present plan is a reasonable level of effort. It should also provide us with a reasonable degree of confidence that we will not be strategically surprised by the lack of intelligence product. Additional effort is of course always desirable, but might result in over saturation of present facilities and capabilities with resulting degradation of the over-all program.

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ALBERT D. WHEELON  
Deputy Director  
(Science and Technology)

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Signature Recommended:

(Signed) Jack C. Ledford

AD/OSA

11 SEP 1963

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OFFICE OF SPECIAL ACTIVITIES

RECAPITULATION OF AIR ACTIVITIES, WEEK ENDING 11 SEPTEMBER 1963

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PROJECT	VEHICLE	DATE	TARGET COUNTRY	BY	APPROVED	DATE	ACTION
IDEALIST/TACKLE							
4 Missions	U-2	SEPTEMBER	China Mainland	Special Group		29 Aug	
1 Mission	U-2	SEPTEMBER	North Korea	Special Group		29 Aug	Marginal weather conditions have precluded any activity during this period.
IDEALIST/LOW NOTE							
2 Missions	U-2	SEPTEMBER	Laos/North Vietnam	Special Group		5 Sep	Marginal weather conditions have precluded any activity during this period.
1 Mission	U-2	SEPTEMBER	South Laos	Special Group		29 Aug	Weather in this area not acceptable for high altitude photo reconnaissance.

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OFFICE OF SPECIAL ACTIVITIES

RECAPITULATION OF AIR ACTIVITIES, WEEK ENDING 11 SEPTEMBER 1963

PROJECT	VEHICLE	DATE	TARGET COUNTRY	BY	APPROVED	DATE	ACTION
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